

SWIF No 42-AA-0012

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA STREET, SUITE 200
SAN LUIS OBISPO, CALIFORNIA 93401-5427

ORDER NO. 94-26

WASTE DISCHARGE REQUIREMENTS
FOR
VANDENBERG LANDFILL
VANDENBERG AIR FORCE BASE

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds that:

1. The United States Air Force (hereafter "Discharger") owns and operates the Vandenberg Air Force Base Class III Landfill (hereafter "Landfill").
 2. The 172 acre site is located in section T7N, R34W, San Bernardino Base and Meridian (SBB&M), Surf Quad, Santa Barbara County as shown on Attachment "A" included as part of this Order.
 3. These Waste Discharge Requirements (Requirements) are being revised/updated to incorporate all criteria currently applicable to solid waste disposal sites, particularly:
 - a. criteria established in California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15), including Article 5, pertaining to landfill water quality monitoring and response programs, as amended July 1, 1991; and
 - b. criteria established in 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule (Known as "Subtitle D"), as promulgated October 9, 1991.
- Also, these requirements are being revised to include disposal of water collected at the toe of the landfill at a spray disposal area. Timely implementation of current
- monitoring requirements and pertinent changes, including compliance with stringent state and federal landfill regulations, will bring the landfill into compliance.
4. This Order revises/updates and replaces Order No. 88-161 adopted by the Board on November 18, 1988.
 5. Land use within 1000 feet of the Landfill:
 - 1) Military Industrial Facilities
 - 2) Spray Field for Ground Water/Leachate from landfill
 - 3) Open Space
 6. The Landfill was operated from 1941 to 1958 by the U.S. Army. In 1958 the Air Force established Vandenberg Air Force Base at the former Army Base and assumed the operation of the Landfill. In 1985 an Installation Restoration Program was initiated at the military site to investigate and cleanup contamination resulting from past military operations.
 7. The Landfill is located at the north end of Oak Canyon, on the southeastern edge of Burton Mesa. Geologic units underlying and adjacent to the landfill include the Monterey Shale, Sisquoc Diatomite, Orcutt Sand, and younger alluvial deposits. The upper unit of the middle to late Miocene marine Monterey Shale is the primary lithologic unit in the area, and is used for daily cover within the Landfill. This unit is a hard, platy to brittle, cherty siliceous shale

- that weathers to a white color. It is diatomaceous, and contains organic matter in the form of hydrocarbons and bituminous material. The Monterey Shale averages slightly less than 2,000 feet in thickness on Burton Mesa.
8. The Landfill is primarily underlain by alluvial deposits and sand (SP and SW) with silty sand (SM), clayey sand (SC), clayey gravel (GC) and clay (CL) interlaced in depositional bedding planes. The depth, through the alluvium, to the Shale formation ranges between ten to forty feet. The hydraulic conductivity of the Oak Canyon alluvium beneath the Landfill was measured at 0.0036 cm/sec (Reference: Engineering Science 1993 "Draft Report of Waste Discharge").
 9. Several major fault zones and numerous smaller faults are located throughout the region. Active or potentially active faults located within 60 miles of the site include the Lions Head, Hosgri, Santa Ynez, Los Alamos, More Ranch-Mission-San Cayetano, Big Pine, Pitas Point-Ventura, Oak Ridge, Anacapa- Santa Cruz Island, and San Andreas Fault Zones. The acceleration from the Maximum Probable Earthquake is estimated to be from 0.49-0.53 g's developed from an earthquake at either the Lions Head or Hosgri Faults.
 10. The Lompoc Valley ground water system is comprised of three basins, Lompoc Terrace, Lompoc Plain and Lompoc Upland. Oak Canyon drains into the Lompoc Plain ground water basin, which is located in the lowlands of the Santa Ynez River. The Landfill is within the Oak Canyon watershed. Upgradient of the Landfill toe, the Oak canyon water shed area covers approximately 300 acres. The site receives a mean precipitation of 14.4 inches annually with November to May as the predominant wet months.
 11. The Landfill is not the 100 year flood plain.
 12. Ground water occurs in the alluvial sediments overlying the Monterey Shale. The depth to ground water varies from the ground surface (seeps that occur near the north end of the site) to 60 feet below ground surface at LF-MW-1 located at the middle of the site. Ground water depth is ten to twenty feet at the southern edge of the site near the downgradient point of compliance. The underlying Monterey Shale formation has only one well, DSW-MW-1, which was dry immediately below the alluvial sediments during drilling. DSW-MW-1 is screened between 85 feet and 92 feet below ground surface (i.e., 197 feet and 205 feet above mean sea level). Engineering Science Reports no hydraulic connection between the alluvial sediments and the Monterey formation at the site. However, it is the opinion of the Board staff that further investigation is needed to substantiate this claim.
 13. There are no domestic wells within one mile of the site.
 14. Shallow ground water flows southerly down Oak Canyon following the contours of the site. The gradient is approximately 3 percent. A perched ground water collection system is located downgradient of the Landfill's toe. The ground water collection system operates during wet weather and several weeks afterward. The extracted ground water is pumped to the "Spray Disposal Area" on the Burton Mesa as described in Finding 17 of this Order.
 15. A "Solid Waste Assessment Test Report" completed in 1984, shows the Landfill to have caused ground surface water quality at the site to be degraded. Volatile organics, inorganics, pesticides and herbicides have been detected in both surface and ground water monitoring at levels above Department of Health Primary Maximum Contamination Levels. According to the May 1993 draft "Report of Waste Discharge" ground and surface water data are as follows:

<u>Contaminant</u>	<u>Concentration</u>	<u>Well</u>	<u>MCL</u>
1,4-Dichlorobenzene	14	3-MW-5	5.0
1,4-Dichlorobenzene	12	WETSU-11	"
1,4-Dichlorobenzene	8.0	LF-MW-1	"
Vinyl Chloride	7.7	LF-MW-1	0.5
Vinyl Chloride	6.0	LF-MW-2	"
Vinyl Chloride	1.6	LCS-1	"
Trichloroethene	38	3-MW-11	5.0
*Arsenic	73.8	DSW-MW-1	50
Benzene	2.70	50-MW-3	1.0
Heptachlor	0.01	LF-MW-2	0.01
Heptachlor	0.02	PC-SW-1	"

Note:

PC-SW-1 is a surface water point of compliance.
All units in microgram per liter.

*Arsenic may be naturally occurring

16. In December 1981, a subsurface dam and lined pond were installed south of the landfill. The system was designed to prevent the migration of leachate from traveling in the alluvial soils down Oak Canyon. With several seeps reported during inspections since 1983, an additional slurry wall was constructed 200 feet south of the subsurface dam in 1991. The slurry wall is built across the width of Oak Canyon in an effort to stop ground water from traveling down Oak Canyon. Seeps which have continued to flow since the slurry wall installation appear to be fed by water from uphill areas lateral to Oak Canyon. The leachate/ground water management system and the monitoring wells located near the landfill toe are shown on Attachment "C", included as part of this Order.

17. Ground water is pumped from the slurry wall to a holding tank. The water is then pumped onto the Burton Mesa east of the landfill and disposed by spray irrigation. The volume of the water being sprayed has not yet been fully characterized. Monitoring data reported in the "1993 Draft Report of Waste Discharge" (DROWD) for the ground water/leachate extraction system (referred to as LCS-1) indicates the possible presence of Dichlorodifluoro Methane (17ug/l), Vinyl

Chloride (1.6 ug/l), Phenol (1.1 ug/l), and Toluene (0.28 ug/l). The Spray Disposal Area is shown on Attachment "B", included as part of order.

18. The water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Board on November 17, 1989, and approved by the State Water Resources Control Board on August 16, 1990. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the water quality objectives stated in that Plan.

19. Present and anticipated beneficial uses of ground water downgradient of the discharge include:

- a. Domestic Supply:
- b. Municipal supply:
- c. Industrial supply: and
- d. Agricultural supply

20. Present and anticipated beneficial uses of surface water, including the Santa Ynez River, in the vicinity of the discharge include:

- a. Warm freshwater habitat
- b. Water contact recreation
- c. Wildlife habitat;

- d. Municipal and domestic supply;
 - e. Agricultural supply;
 - f. Ground water recharge; and
 - g. Non-contact water recreation.
21. The Landfill is currently regulated by Solid Waste Facility Permit (SWFP) 42-AA-102 issued by California State Solid Waste Management Board.
22. The Landfill utilizes the cut and cover method of disposal and is unlined. The currently active portion of the Landfill are divided into Pads A through E as shown on Attachment "B". The Pads were designated for the purpose of directing traffic at the Landfill. Refuse is added to the Landfill in cells measuring 30 feet by 30 feet and 4 feet high. A twelve inch thick cover layer is placed on the tops and sides daily. The Landfill's footprint is approximately 43 acres. The final fill elevation will be 450 feet above mean sea level. The Landfill has projected remaining life of 92 years.
23. The Discharger reserves areas at the site for specific waste disposal. These areas include:
- a. Animal cemetery;
 - b. Asbestos disposal; and
 - c. Closed grease pit.
24. The Landfill is suitable for receiving wastes classified as nonhazardous solid waste and inert wastes, based on criteria set forth in Chapter 15. No liquid or hazardous wastes are accepted.
25. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under CCR, Title 22. Since such wastes do not pose a threat to water quality, Section 25143.7 of the Health and Safety Code permits its disposal in any landfill, providing waste discharge requirements specifically permit the discharge and the wastes are handled and disposed of in accordance with other applicable State and Federal statutes and regulations.
26. The most recent revisions to Article 5 of Chapter 15, which went into effect July 1, 1992, have made extensive changes in the required monitoring programs for ground water, surface water, and the vadose zone. Additional changes in the financial assurance program have also been made. Due to these recent changes, amendments and/or revisions to the existing Order are needed. To comply with Article 5, the Discharger's submitted the May 1993 Draft Report of Waste Discharge prepared by Engineering Science. The Landfill currently meets all other Chapter 15 criteria for classification as a Class III landfill suitable to receive nonhazardous solid wastes.
27. On October 9, 1991, the Environmental Protection Agency (EPA) promulgated regulations pertaining to solid waste disposal facilities known as 40 CFR, Parts 257 and 258 Solid Waste Disposal Facility Criteria, Final Rule (also known as Subtitle D). Subtitle D implementation/ applicability is as follows:
- a. Municipal solid waste landfills with WDR's that stopped receiving waste on or before October 9, 1991 are exempt from Subtitle D except for monitoring requirements and deed restrictions.
 - b. Units that receive waste on or after October 9, 1991 but stop prior to October 9, 1993, must meet only the final cover requirements specified in Section 258.60(a).
 - c. Units that receive waste on or after October 9, 1993 must comply with all requirements of Subtitle D.
- As of October 9, 1993, the Subtitle D regulations have been self-implementing. California has received U.S. EPA authorization (became an "Approved" State) to implement the federal Subtitle D regulations. All of Part 258 requirements

are effective, except subpart G of Part 258 (financial assurance requirement), which became effective April 9, 1994.

28. Discharge of waste is a privilege, not a right, and authorization to discharge waste is conditioned upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.
29. These Waste Discharge Requirements contain prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of the project on water quality. These Waste Discharge Requirements are for an existing facility and as are exempt from provisions of the California Environment Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.
30. On December 17, 1993, the Board notified the Dischargers and Interested agencies and persons of its intention to update the waste discharge requirements for the discharge and has provided them with a copy of the proposed order and an opportunity to submit written views and comments.
31. After considering all comments pertaining to this discharge during a public hearing on June 3, 1994, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, the United States Air Force, its agents, successors, and assigns may discharge wastes at the Vandenberg Air Force Base Class III Landfill, providing compliance is maintained with the following:

Throughout these requirements, footnotes are listed to indicate the source of requirements specified. Requirements footnotes are as follows:

a=CCR, Title 23, Chapter 15
b=California Water Code
c=Basin Plan
d=CFR, Part 257 and 258 (Subtitle D)

Requirements without footnotes are based on professional judgement.

A. DISCHARGE PROHIBITIONS

General Prohibitions

1. Discharge of waste outside the designated disposal area, as specified in the most recent version of the Operations Plan and identified in Attachment "B", is prohibited.
2. Discharge of solid wastes within the "currently permitted landfill area limits", where refuse placement has not occurred, is prohibited; unless a composite liner system, as described in **Specification B.34.**, is provided.^d
3. Discharge of hazardous waste, except for waste that is hazardous due only to its asbestos content, is prohibited. For the purposes of this Order, the terms hazardous waste is as defined in Chapter 15.^a
4. Discharge of designated waste is prohibited except when the discharger demonstrates to the Executive Officer's satisfaction that waste constituents present a lower risk of water quality degradation than indicated by this classification. For the purpose of this order the term "designated waste" is defined in Chapter 15.
5. Discharge of "liquid wastes" or "semi-solid wastes" (i.e., wastes containing less than 50 percent solids by weight), other than ground water, leachate and gas condensate as described in **Discharge Specification B.7.** and dewatered domestic sludge is

prohibited. Exemptions to discharging wastes containing less than 50% solids by weight may be granted by the Executive Officer if the Discharger can demonstrate the discharge will not exceed the moisture-holding capacity of the Landfill, either initially or as a result of waste management operations, compaction, and/or settlement.^a

6. Discharge of dewatered sewage or water treatment sludge, which contains less than 50% solids by weight to any Landfill areas, shall meet conditions identified in **Discharge Specification B.16.^a**
7. Discharge of waste to ponded water from any source is prohibited.^a
8. Ponding of liquids over solid wastes is prohibited.^a
9. Discharge of leachate or gas condensate containing hazardous concentrations of constituents is prohibited.^a
10. Discharge of waste that would reduce or impair the integrity of containment structures is prohibited.^a
11. Discharge of wastes which, if commingled with other wastes in the unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn :
 - a. require a higher level of containment than provided by the Landfill,
 - b. are restricted hazardous wastes, or
 - c. impair the integrity of containment structuresis prohibited.^a
12. Discharge of wastes within five (5) feet of the highest anticipated water table elevation, including the capillary fringe, is prohibited. If excavations encounter ground water or come within five (5) feet of ground water,

native soil shall be replaced and compacted to satisfy this specification.^a

13. Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of domestic water supply wells, is prohibited.
14. Discharge of solid or liquid waste or leachate to surface waters, drainageway(s), or ground water, is prohibited.
15. Discharge of solid or liquid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited. Waste must pass the paint filter test to determine if free liquids are present.^{a,d}
16. Discharge of waste solvents, dry cleaning fluids, paint sludge, pesticides, phenols, brine, and acid and alkaline solutions is prohibited.^a
17. Discharge of oils or other liquid petroleum products is prohibited.
18. Discharge of chemical and biological warfare agents is prohibited.
19. Discharge of leachate or landfill gas condensate to any landfill waste management unit (Unit) is prohibited, unless:
 - a. The landfill gas condensate or leachate is being returned to the landfill Unit that produced it; and
 - b. The portion of the landfill to which these materials are discharged is equipped with a containment system as outlined in **specification B.34., below.^d**

B. DISCHARGE SPECIFICATIONS

General Specifications

1. The Discharger shall implement the attached "Monitoring and Reporting Program No.94-26" (Program) in order to detect, at the

- earliest opportunity, any unauthorized discharge of waste constituents from the Landfill, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the Landfill.^a
2. Discharge of waste shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to the current version of the Program.
 3. Discharge of waste shall not cause the release of pollutants, or waste constituents in a manner which could cause a condition of pollution or nuisance to occur, as indicated by the most appropriate statistical (or non-statistical) data analysis method and retest method listed in the Program, Part II.^a
 4. Discharge of waste shall neither cause nor contribute to the pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
 5. Discharge of waste shall neither cause nor contribute to any surface water pollution or nuisance, including, but not limited to:
 - a. floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. increases in bottom deposits or aquatic growth;
 - c. an adverse change in temperature, turbidity, or apparent color beyond natural background levels;
 - d. the creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. the introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of beneficial uses of waters of the State.
 6. The discharge of waste shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the Landfill if such waste constituents could migrate to waters of the State in either liquid or gaseous phase and cause a condition of pollution or nuisance.
 7. With written approval of the Executive Officer, Water (including non-hazardous and non-designated treated leachate and gas condensate) used during disposal site operations shall be limited to the minimal amount necessary for dust control, and vegetation establishment/irrigation, and construction (soil compaction) purposes. Water, leachate and condensate, used at the Landfill, shall not infiltrate into areas containing wastes.
 8. Disposal site operations shall not be a source of odor nuisance.
 9. The discharge shall prevent formation of a habitat for carriers of pathogenic microorganisms.
 10. The handling and disposal of asbestos containing wastes shall be in accordance with all applicable federal, state, and local statutes and regulations.
 11. Ash wastes may be discharged in the Landfill only when chemical analyses demonstrate to the Executive Officer's satisfaction that the waste is non-hazardous.^a
 12. As of the adoption date of this Order, the Discharger shall remove and relocate any wastes discharged, in violation of these requirements.
 13. All refuse material that is wind-blown outside the active Landfill area shall be collected regularly and disposed in the Landfill. If wind-blown litter becomes a continuing problem, a containment barrier

(additional screens and/or fences) shall be constructed to prevent spreading of refuse.

14. A program for periodic intake load-checking shall be maintained to ensure that 'hazardous waste,' 'designated waste' and 'radioactive waste' are not discharged at this Landfill.^a
15. The Discharger shall operate the Landfill in conformance with the most recently Executive Officer approved Master Plan, Operations Plan, and/or Site Development Plan, except where the Plan(s) conflict with this Order. In the event of conflict, this Order shall govern in cases where it is most restrictive. Any changes to the Plan(s) that may affect compliance with this Order must be approved in writing by the Executive Officer.^a
16. Discharge of dewatered sewage sludge or water treatment sludge to the Landfill shall meet all of the following criteria:
 - a. dewatered domestic sludge which is utilized beneficially as soil amendment to promote vegetation over intermediate or final cover may be allowed with written Executive Officer approval.
 - b. Sludge discharge into the Landfill shall be only to Units equipped with a dendritic/blanket-type leachate collection and removal system (LCRS) or acceptable equivalent immediately above the liner. However, if the sludge contains greater than 50% solid by weight, an LCRS may not be required depending on site specific conditions and upon Executive Officer approval.
 - c. A daily minimum solid waste-to-sludge ratio of 5 to 1 by weight shall be maintained to ensure co-disposal will not exceed the moisture-holding capacity of nonhazardous solid waste. The actual ratio required by the Regional Board shall be based on site-specific conditions.

- d. Primary and mixtures of primary and secondary sludge shall contain at least 20 percent solids by weight.
- e. Secondary sewage sludge or water treatment sludge shall contain at least 15 percent solids by weight.

17. Waste shall not be discharged to a wetland, as defined in 40 CFR Section 232.2(r), or to any portion thereof, unless the Discharger successfully completes all demonstrations pursuant to 40 CFR Section 258.12(a). Such demonstration is subject to approval of the Executive Officer.^d

18. Refuse shall be covered daily by at least six inches of cover material or, if allowed by the Local Enforcement Agency, meet Performance Standards of the California Code of Regulations, Title 14, Section 17683. Cover shall promote lateral runoff of rainfall away from the active disposal area. Upon Executive Officer approval, alternative daily cover materials may be utilized. Long-term alternatives to the daily cover requirements must satisfy the alternative daily cover Procedures and be approved by the California Integrated Waste Management Board.^a

Wet Weather

19. By October 1 of each year, all necessary runoff diversion and erosion prevention measures shall be implemented. All necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the Landfill and to prevent surface drainage from contacting or percolating through wastes.^a
20. All landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion. Positive drainage to divert rainfall runoff from areas containing waste shall be provided.

21. Drainage ditches crossing over landfill areas shall be lined with material which provides an effective field permeability of 1.0×10^{-6} cm/sec or less. If material other than clay or synthetic is used, data must be provided to, and approved by, the Executive Officer. The drainage facilities shall be designed and constructed to accommodate anticipated precipitation and peak surface runoff flows from a 100-year, 24-hour event.
 22. Water collected in any storm water catchment basin or a site water treatment facility may be used in minimum amounts necessary for dust-control, compaction, or irrigation of cover vegetation provided:
 - a. none of the water infiltrates past the root zones of vegetation or past a dept where effective evaporation can occur, and
 - b. The water does not contain or carry waste constituents.
 23. Waste containment barriers shall be maintained to ensure effectiveness.^a
 24. The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all National Pollutant Discharge Elimination System (NPDES) Stormwater Monitoring Program requirements.
 25. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed, to maintain the design capacity of the system.
 26. A minimum of two feet of freeboard shall be maintained in all leachate containment ponds.^a
 27. If adequate soil cover material is not accessible during inclement weather, such material shall be stockpiled during favorable weather to ensure year-round compliance.^a
 28. Throughout the rainy season of each year, a minimum one (1) foot thick compacted soil cover designed and constructed to minimize percolation of precipitation through wastes, shall be maintained over the entire active landfill areas. The soil cover shall be in-place by **October 1 of each year**. The only exception to this specification is the working face. The working face shall be confined to the smallest area practicable based on the anticipation quantity of waste discharged and required waste management facility operations. Landfill areas which have been provided an Executive Officer approved vegetative layer as of the adoption date of this Order, shall not be required to satisfy this requirement. Based on site specific conditions, the Executive Officer may require a thicker soil cover for any portion of the active Landfill prior to the rainy season.
 29. By **October 1, of each year**, vegetation shall be planted and maintained over all Landfill slopes within the "designated disposal area" to prevent erosion. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth not in excess of the vegetative layer thickness. Upon Executive Officer approval, non-hazardous sludge may be conditionally utilized as a soil amendment to promote vegetation. Upon written Executive Officer approval non-hazardous sludge may be conditionally utilized as a soil amendment to promote vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.
- Design Criteria**
30. Waste management units, containment structures, and drainage facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion,

slope failure, washout, overtopping, and damage due to natural disasters (e.g., floods with a predicted frequency of once in 100 years, the maximum probable earthquake, and severe wind storms).^a

31. Waste management units, containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of all state and federal landfill regulation including, but not limited to Chapter 15, Title 14 (of the CCR) and 40 CFR Parts 257 and 258, prior to waste discharge.^{a,d}
32. All Landfill facilities shall be designed and constructed to minimize damage during the "maximum probable earthquake" to the graded foundation and to structures which control leachate, surface drainage, erosion, and gas. The operator must demonstrate that all containment structures, including liners, leachate collection and removal systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator must place the demonstration in the operating record and notify the Executive Officer that it has been placed in the operating record.
33. The Discharger shall ensure the integrity of the final slopes under both static and dynamic conditions considering seismic acceleration at least from the maximum possible earthquake. The slope of those portions of the fill which will be the final exterior surfaces shall be developed in accordance with California Code of Regulations, Title 14, Division 7, Chapter 3, Article 7.8 and Title 23, Division 3, Chapter 15, Subsection 2581 namely:
 - a. All slopes shall have a minimum of one 15-foot wide bench for every 50 feet of vertical height.
 - b. Slopes shall not be steeper than a horizontal to vertical ratio of 1.75:1 (57%).
 - c. Slopes steeper than a horizontal to vertical ratio of 3:1 (33%) shall be supported by a slope stability analysis report approved by the Executive Officer.
 - d. Slopes with grades less than 3% require the approval of the Executive Officer.
34. Waste shall not be discharged to areas outside the footprint area which has not received waste as of April 9, 1994, unless the discharge is to an area equipped with a containment system, which meets c. and either a. or b. below:
 - a. A composite liner and leachate collection and removal system. The liner must consist of two components:
 - i. **Lower Component:** A minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec (0.1 feet/year); and
 - ii. **Upper Component:** A minimum 40-mil flexible membrane liner (FML) or a minimum 60-mil high density polyethylene (HDPE). The upper component must be installed in direct and uniform contact with the lower component: or
 - b. An engineered alternative design. Engineered alternative designs must satisfy the performance criteria in 40 CFR, Section 258.40(a)(1) and (c), and satisfy the criteria for an engineered alternative to the above Prescriptive Design, as provided by Title 23, CCR, Section 2510 (b), where the performance of the alternative composite liners' components, in combination, equal or exceed the waste containment capability of the Prescriptive Design.^d

- c. A leachate collection and removal system as specified in Specification B.36.

35. Permeability determinations shall be as specified in Article 4 of Chapter 15. Permeabilities specified for containment structures other than cover shall be relative to the fluids, including waste and leachate, to be contained. Permeabilities specified for cover shall be relative to water. Permeabilities shall be determined primarily by appropriate field test methods in accordance with civil engineering practice (sealed double ring - infiltrometer test is required). The results of laboratory tests with both water and leachate, and field tests with water, shall be compared to evaluate how the field permeabilities will be affected by leachate. Appropriate compaction tests may be used in conjunction with laboratory permeability tests to determine field permeabilities as long as a reasonable number of field permeability tests are also conducted.^a

36. The leachate collection and removal system shall be designed, constructed, maintained, and operated to:

- a. prevent the development of hydraulic head on all composite lined areas;
- b. collect and remove twice the maximum anticipated daily volume of leachate from Unit;^a
- c. convey, to a composite lined collection area or sump designed in accordance with Specification B.34., all leachate which reaches any composite lined Unit;
- d. maintain the dept. of leachate in any collection area or sump to the minimum dept needed to ensure efficient pump operation.^a

Closure

37. Final Landfill configurations shall conform to the contours delineated in the most recent version of the **Master Plan**.

38. Areas at final elevations, 450 feet above mean sea level, shall be covered with final cover pursuant to Section 2581 of Chapter 15 including from bottom to top:^a

- a. at least a two foot foundation layer placed over waste;
- b. a low permeability geomembrane and compacted clay with an in-place permeability 1×10^{-6} cm/sec, or no faster than the permeability of underlying natural geologic materials, which ever is less; and
- c. at least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low permeability layer.

Hydraulic conductivity of low-permeability soil layer shall be determined by both laboratory and in-place field testing. Permeability determinations for cover materials shall be as specified in Article 4 of Chapter 15 and shall be appended to the final closure and post-closure maintenance plan. Construction methods and quality assurance procedures shall be submitted to the Executive Officer, and shall insure all parts of the low-permeability layer meet the hydraulic conductivity and compaction requirements. The final cover shall be graded to a slope of at least 3%, but not more than 10% unless adequate erosion control measures are implemented and approved by the Executive Officer.

39. All landfill areas which have not reached final fill elevation, but will remain inactive over one-year, must be provided with an Executive Officer approved long-term intermediate cover. The thickness and permeability of the long-term intermediate

cover shall be based primarily on site specific conditions including, but not limited to length of exposure time; volume of underlying material, permeability, thickness and composition of existing cover, amount of yearly rainfall; depth to ground water; beneficial uses of underlying ground water; site specific geologic and hydrogeologic conditions; and effectiveness of existing monitoring system.

40. The Discharger shall implement final closure activities as the site operation progresses (e.g., within 30 days after a particular Unit or portion of a Unit reaches final fill elevation, final closure cover must be provided), in accordance with requirements consistent with the closure of the entire site, as approved by the Executive Officer and the CIWMB in accordance with the most recently approved closure plan.^a
41. All closed landfill Units shall be provided with at least two permanent monuments, installed by a licensed land surveyor, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. Cumulative waste subsidence and settlement of areas where final cover is installed, shall be documented in the annual report.^a
42. Partial closure shall be accomplished by implementing closure activities, including but not limited to: placement of final cover, final grading, maintenance, revegetation, and installation of environmental monitoring control systems consistent with the closure of the entire site. Units closed in accordance with a Closure Plan approved by the Executive Officer and the California Integrated Waste Management Board, are not subject to future regulatory changes, unless monitoring data indicate impairment of beneficial uses of ground water.^{a,b}
43. Alternative intermediate and final cover designs may be considered for Executive

Officer approval, if such designs provide equivalent reduction in infiltration and protection from wind and water erosion.^a

44. Methane and other landfill gases shall be adequately vented, removed from the Landfill, or otherwise controlled to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration through the vadose (unsaturated) zone. Discharger shall comply with gas control requirements pursuant to Title 14 regulations.^a

Reporting

45. Discharger shall notify Board staff, within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance which threatens the landfill's containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e. emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times of anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:
 - a. violation of a discharge prohibition;
 - b. violation of any treatment system's discharge limitation;
 - c. slope failure; and
 - d. leachate seep occurring on, or in proximity to, the Landfill.^a

46. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule, shall be submitted within 30 days following each scheduled date unless otherwise specified within the Order. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted no later than 14 days of achieving full compliance.
47. Reports shall be submitted in advance of any planned changes in the permitted facility or in an activity which could potentially or actually result in noncompliance.

Spray Disposal Area

48. Ground water may be applied on the "Spray Disposal Area" indicated on Attachment B, provided compliance with the following specifications are met:
- Spray irrigation shall not occur during wet weather nor when the soil is saturated.
 - Spray irrigation shall be monitored as described in the attached Monitoring and Reporting Program.
 - Water and leachate applied on the Spray Disposal Area shall not cause a "statistically significant" increase over background for any of the constituents of concern or monitoring parameters listed in Appendix I and II of Subtitle D.
 - Operation of the "Spray Disposal Area" shall comply with all applicable requirements contained in Chapter 15 and all other applicable laws and regulations.

C. WATER QUALITY PROTECTION STANDARDS

- Water Quality Protection Standards (WQPS or Standard). The five parts of the Water Quality Protection Standard [Standard] are as follows:
 - Constituents of Concern. The list of Constituents of Concern for (1) water-bearing media [i.e. ground water, surface water, and soil pore liquid] consists of all constituents in Appendix II of 40 CFR Part 258 in addition to Total Dissolved Solids, Sulfate, Nitrate Carbonate, pH, and Chloride, and (2) for soil pore gas consists of all Volatile Organic Compounds detectable via gas chromatography. Constituents of Concern, and many other terms of Article 5 used in this Order, are defined in the latest version of the Monitoring and Reporting Program, Part III.B., which is hereby incorporated by reference.
 - Concentration Limits for Detection Monitoring [Section 2550.4 of Article 5]. For each Monitoring Point assigned to the Detection Monitoring Program [Program Part I.D.4.], the Concentration Limit for each Constituent of Concern [or Monitoring Parameter] shall be its background value as calculated during that "Reporting Period" [defined in Program Part III.B.9.], as described in Part II.A. of the Attached Program.
 - Monitoring Points and Background Monitoring Points for Detection Monitoring shall be those listed in Program Part I.D. 4.
 - Point of Compliance. The Point of Compliance is the edge of the Landfill's "Designated Disposal Area", except near the Landfill's toe where the Point of Compliance extends out and across the "Slurry Wall" shown on Attachments B and C and extends vertically down through the uppermost aquifer.

- e. **Compliance Period.** The Compliance Period is the number of years equal to the active life of the waste management unit (including any waste management unit activity prior to the adoption of the waste discharge requirements) plus the closure period. The Compliance Period is the minimum period of time during which the Discharger shall conduct a water quality monitoring program subsequent to a release. The estimated duration of the Compliance Period for this Unit is **106.5 years**. Each time the Standard is broken (i.e. a release is discovered), the Unit begins a Compliance Period on the date the Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the Standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the Unit has been in continuous compliance for at least three consecutive years.

2. **Monitoring Parameters for Detection Monitoring.**

- a. The Detection Monitoring Parameters for (ground water, surface water, perched zone, or soil-pore liquid) samples include those listed in **Program Part I.D. 2.**, and VOC_{water} a composite parameter that encompasses variety of volatile organic constituents and described in **Program II.A.2a.**
- b. The Detection Monitoring Parameters for soil pore gas samples include those listed in **Program Part I.D.2:** and VOC_{spg} , a composite parameter that encompasses a variety of gaseous-phase volatile organic constituents as described in **Program Part II.A.2.b.**

3. **Additional Monitoring Points or Background Monitoring Points.** By

October 9, 1994, The Discharger shall, install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.

4. **Additional Requirements**

- a. The concentrations of indicator parameters or waste constituents in water passing through the "Detection" Points of Compliance shall not exceed the "water quality protection standard(s)" established pursuant to Monitoring and Reporting Program No. 94-26, which is attached and made part of this Order.
- b. Discharge of waste shall not cause a "statistically significant" increase over background for any of the constituents of concern or monitoring parameters listed in Appendix I and II of Subtitle D.
- c. Discharge of waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board.
- d. Discharge of waste shall not cause concentrations of chemicals and radionuclides in underlying and downgradient groundwater to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the code.
- e. Discharge of waste shall not adversely impact the quality of water in any aquifer.
- f. Discharge of waste shall not cause ground water in downgradient wells to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Containment Levels.

D. PROVISIONSGeneral Provisions

1. Order No. 88-161 "Waste Discharge Requirements for U.S. Air Force, Vandenberg Air Force Base, Class III Solid Waste Disposal Site," adopted by the Board on November 18, 1988, is hereby rescinded.
2. The Discharger shall comply with "Monitoring and Reporting Program No. 94-26" (Program), as specified by the Executive Officer.
3. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to regulatory agency personnel and to facility operating personnel, who shall be familiar with its contents.
4. The Discharger shall comply with all other applicable provisions of Chapter 15 and Subtitle D that are not specifically referred to in this Order. If any applicable regulation requirements overlap or conflict in any manner, the most restrictive requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
5. The Discharger shall maintain legible records of the volume and type of each waste discharged at each Unit and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
6. The Discharger shall be responsible for accurate waste characterization, including determinations of whether or not wastes will be compatible with containment features or other wastes and whether or not wastes are required to be managed as hazardous wastes.^a
7. A list of the general types of the more widely used names of hazardous-type wastes prohibited at this site shall be posted on a legible roadway sign at the Landfill's entrance. The sign shall also state the locations of the nearest hazardous waste disposal sites and shall list penalties for illegal dumping. A specific list of hazardous wastes and other types of materials prohibited at this landfill shall be provided to commercial waste haulers that use this Landfill and shall be available to all other site users upon request.
8. The Regional Board considers the landowner and the Discharger to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.
9. The landowner and the Discharger shall have a continuing responsibility to assure protection of usable waters, from discharged wastes and from gases and leachate generated by discharged waste, during the Landfills active life, closure, and post-closure maintenance periods and during subsequent use of the property for other purposes.
10. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with Monitoring and Reporting Program No. 94-26, as required by Section 13750 through 13755 of the California Water Code.^b
11. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the facility. This notification shall be given at least 90 days prior to the effective date of the change and shall be

accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these WDRs. In the event of any Change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Board. Notification to the Board shall also comply with Section 2590(c) of Chapter 15.^a

12. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a violation of Section 13264 of the Water Code (discharge without waste discharge requirements). Transfer shall be approved or disapproved in writing by the Executive Officer.^b

13. Within 60 days after completing final closure of all Landfill Units.

a. the owner or operator must record a notation on the deed to the Landfill facility property, or some other instrument that is normally examined during title search, and notify the Executive Officer that the notation has been recorded and a copy has been placed in the operating record.

b. the notation on the deed must in perpetuity notify any potential purchaser of the property that:

i. the land has been used as a landfill facility; and

ii. its use is restricted pursuant to Subtitle D, section 258.61(c)(3).

c. Pursuant to Chapter 15, should the Discharger default in post-closure care, liability shifts to the new owner/operator.^{a,d}

14. The Discharger shall submit to the Regional Board and the California Integrated Waste Management Board (CIWMB) for approval a preliminary closure and post-closure maintenance plan (Closure Plan) by June 30, 1994. The Closure Plan shall describe the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan must include:

a. a description of the final cover, designed in accordance with all applicable State and Federal regulations and the methods and procedures to be used to install the cover;

b. an estimate of the largest area of the Landfill Unit ever requiring a final cover at any time during the active life;

c. an estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility; and

d. a schedule for completing all activities necessary to satisfy all closure criteria as required by Chapter 15 and Subtitle D regulations;

The Closure Plan shall be prepared by or under the supervision of a California registered civil engineer or certified engineering geologist. Updates of the plan are required whenever substantial changes occur or five years had elapsed since the last major revision. The method, identified for each Units' closure and protection of the quality of surface and ground waters, shall comply with waste discharge requirements

established by the Regional Board. The Closure Plan report shall be consistent with all applicable State and Federal regulations, including Chapter 15 and Subtitle D.^{a,d}

15. The Discharger shall notify the Board at least 180 days prior to beginning any partial or final landfill closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved Closure Plan and that the Plan provides for closure in compliance with all applicable state and federal regulations. If there is no approved Closure Plan, the Discharger must submit a complete Closure Plan at least 240 days prior to beginning any Landfill closure activities.^a
16. The Executive Officer may require partial and/or final closure of any landfill unit regardless of whether such a unit has reached final capacity laterally and/or vertically for the protection of water quality.^a
17. The Discharger shall report all changes in usage of daily cover and performance standards within 10 days following the change.
18. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor, as appropriate, ground water, leachate from the Unit, the vadose zone, and surface waters per the current version of the Program throughout the post-closure maintenance period.^a
19. The post-closure maintenance period shall continue until the Board determines that remaining wastes in the Landfill will not threaten water quality.^a
20. Discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste containment facilities or

of precipitation and drainage control structures.

21. At any time, the Discharger may file a written request (including appropriate supporting documents) with the Regional Board Executive Officer, proposing appropriate modifications to the Monitoring and Reporting Program. The request may address changes (a) to any statistical method, non-statistical method, or retest method used with a given constituent or parameter, (b) to the manner of determining the background value for a constituent or parameter, (c) to the method for displaying annual data plots, (d) to the laboratory analytical method used to test for a given constituent or parameter, (e) to the media being monitored (e.g. the addition of soil pore gas to the media being monitored), (f) to the number or placement of Monitoring Points or Background Monitoring Points for a given monitored medium, or (g) to any aspect of monitoring or quality assurance/quality control. After receiving and analyzing such a report, the Executive officer either shall reject the proposal for reasons listed, or shall incorporate it, along with any necessary changes, into the attached Monitoring and Reporting Program. The Discharger shall implement any changes in the Monitoring and Reporting Program proposed by the Regional Board Executive Officer upon receipt of a revised Monitoring and Reporting Program.
22. The Discharger shall submit a complete liner system design report for Executive Officer consideration of any new landfill unit use and construction, at least 180 days prior to the unit's development. The design report shall adequately address any proposed deviation from the most currently approved fill sequencing plan. It must adequately address all applicable requirements of state (Chapter 15 and Title 14) and federal (Subtitle D) landfill regulations.^a

23. Vertical expansions (i.e., additional refuse placement on top of existing unlined landfill unit already containing refuse) above currently permitted final fill elevations (for this site, 450 feet above mean sea level), as indicated in the most recently approved operations/master plan or waste discharge requirements, will not be permitted, unless The Discharger submits, for Executive Officer consideration and approval, a proposal demonstrating that additional refuse placed on top of existing unlined landfill unit does not significantly increase the threat to water quality. The proposal shall adequately address:

- a. all siting criteria and engineering properties of underlying refuse,
- b. differential settlement, including the ability of the underlying waste to support the additional refuse and all effects of the additional refuse upon the underlying refuse.

All proposal conclusions shall consider site specific conditions, including subsurface hydrogeologic factors, existing threat to water quality, any existing State Water's degradation as a result of landfill waste discharges, beneficial uses of underlying and adjacent waters, size of the existing landfill unit, remaining capacity, existing and proposed final fill elevations, financial feasibility, and any other relevant factors.

24. Pursuant to the California Code of Regulations, Title 23, Chapter 15, Article 9, the Discharger must submit a technical report to the Executive Officer not later than **November 15, 1998** which:

- a. Discusses whether there has been or will be changes in the continuity, character, location, or volume of the discharge;
- b. Discusses any proposed expansions (lateral and/or vertical expansions within and/or outside currently permitted landfill boundaries) or closure

plans, including detailed information of the quality and quantity of waste discharged and the anticipated impact upon water quality and Landfill operations;

- c. Discusses whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision;
- d. Addresses all other applicable sections of Article 9, Chapter 15 (e.g., update of the Landfill's Development and Operations Plan, etc.); and
- e. Includes any other technical documents needed to demonstrate continued compliance with this Order and all pertinent state and federal requirements.^a

25. Prior to **June 30, 1995**, the Discharger shall submit a technical report addressing compliance with all terms of this Order. The report shall include an implementation schedule for all work required by this Order.

26. Except for data determined to be confidential under Section 13267(b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the office of the Regional Board.

27. All report shall be signed as follows:

- a. for a corporation; by principle executive officer of at least the level of vice president;
- b. For a partnership or sole proprietorship; by a general partner or the proprietor, respectively;
- c. For a public agency; by either a principal executive officer or ranking elected official; or,
- d. Their "duly authorized representative."

- e. Engineering reports; by a California Registered Civil Engineer or Certified Engineering Geologist.

28. Any person signing a report makes the following certification, whether its expressed or implied:

"I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

29. The Board will review this Order periodically and will revise these requirements when necessary.

30. The Discharger shall submit an updated/revised version of its Master Plan by **June 30, 1995**. The Master Plan must include detailed information regarding regulatory considerations; design, construction and operating provisions; environmental monitoring; and closure and postclosure. Additionally, the Master Plan shall:^a

- a. Include a Fill Sequencing Plan, including detailed maps. The Fill Sequencing Plan should describe in detail the overall development of the entire Landfill.
- b. Include a detailed description of the lateral and vertical extent of refuse within all existing Modules. It must include an accurate estimate of waste volumes within each existing Landfill module and an approximation of the remaining volume and years of capacity for each existing module and all new proposed modules within currently

permitted Landfill boundaries. It must also describe all existing available space within currently permitted Landfill areas (i.e., modules where refuse has been placed in the past, but have not reached final permitted elevation and modules or portions of modules where refuse has never been placed).

- c. Discuss any plans/proposals to close or partially close any modules or portions of modules, any proposed liner systems and respective design components, any proposed plans for long-term intermediate cover for Landfill areas which may remain inactive for long periods of time.

31. The Discharger shall develop a long-term intermediate cover design for all Landfill areas which have not reached final fill elevation, but will remain inactive for over one year. Cover designs shall minimize percolation from precipitation and surface water flows. The proposed design shall be submitted by **June 30, 1995**, for Executive Officer approval. Executive Officer approval of the design will be based on site specific factors as described in **Discharge Specification B.38**.

32. The Discharger must submit a 'Wet Weather Preparedness Report' by **November 1**, of each year. The report must address, in detail, compliance with all wet weather preparedness related specifications (e.g., **Discharge Specification B.19. through B.29.**) of this Order, and all other relevant Chapter 15, Title 14, and Subtitle D criteria.

33. If the Discharger or the Regional Board determines, pursuant to Section 2550.8(g) or (i), that there is evidence of a new release from any portion of the Landfill, the Discharger shall immediately implement the procedures outlined in **Program, Part III.D.2**.

34. The United States Air Force shall re-evaluate periodically the cost of Financial

Assurance to cover the estimated Article 5 costs to initiate and complete corrective action of the "worse case" reasonably foreseeable release. The Discharger shall submit a report every five years that either validates the cost estimate of the reasonably foreseeable release or proposes and substantiates any needed changes.^{a,d}

REPORT DUE DATES: The report is due **October 30, 1994**, and every five years thereafter.

35. By **June 30, 1994**, the Discharger shall submit a signed original "Letter of Certification" for corrective action financial assurance as outlined in **Provision D.34.**, above, for Executive Officer review and approval.
36. The Discharger shall submit a "Monitoring Feasibility Report" by **June 30, 1995** for both the Landfill and the Spray Irrigation Area. The Report shall address the feasibility of soil pore gas and liquid monitoring, expansion of ground water in the Monterey Shale Aquifer, ground water monitoring near and below the Irrigation Area, surface water monitoring of the Spray Disposal Area, and all other monitoring required by current regulations. The Report shall include a workplan and date specific time schedule for installing all additional monitoring equipment.
37. The Discharger shall submit a "Spray Disposal Area Operation Plan" by **November 1, 1994**. The Plan shall address the design, operation, maintenance, monitoring and closure of the Disposal Area. The Plan shall also propose a method for preventing the spray discharge of contaminated water due to migration of contaminants from the Landfill.
38. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 of the California Water Code, or falsifying

any information provided therein, is guilty of a misdemeanor.

39. The discharger and/or any person who violates waste discharge requirements and/or who intentionally or negligently discharges waste, causes or permits waste to be deposited where it is discharged to waters of the state, may be liable for civil and/or criminal remedies, as appropriate, pursuant to the California Water Code.^b
40. The Discharger shall continue, and expand when appropriate, "evaluation" and "corrective action" monitoring programs. The goal of evaluation monitoring is to determine the extent of contamination. Corrective action monitoring is performed to demonstrate corrective action effectiveness.
41. The Discharger shall submit an "Engineering Feasibility Report" by **June 30, 1995**, which shall address the contaminant source control measures for the landfill.

42. The Discharger shall comply with the following "Report and Implementation Date Summary":

REPORT AND IMPLEMENTATION DATE SUMMARY

<u>TASK</u>	<u>IMPLEMENTATION DATE</u>
Runoff diversion and erosion prevention [Specification B.19.]	October 1, of each year
Minimum One foot cover over entire active landfill [Specification B.28.]	October 1, of each year
Vegetation placement over entire Landfill area [Specification B.29.]	October 1, of each year
Install Additional Monitoring [Water Quality Protection Standard C.3.]	November 1, 1994
<u>RÉPORT</u>	<u>DUE DATE</u>
Updated Closure Plan [Provision D.14.]	June 30, 1994 updates due every five years
Wet Weather Preparedness Report [Provision D.32.]	November 1, of each year
Spray Disposal Area Operations Plan [Provision D.37.]	November 1, 1994
Technical Compliance Report [Provision D.25.]	June 30, 1995
Financial Assurance Report [Provision D.34.]	October 30, 1994 Updates due every five years
Financial Assurance Latter [Provision D.35.]	June 30, 1995
Source Control Report [Provision D.41.]	June 30, 1995
Updated Master Plan [Provision D.30.]	June 30, 1995
Long Term Intermediate Cover Design Report [Provision D.31.]	June 30, 1995
Monitoring Feasibility Report [Provision D.36.]	June 30, 1995
Technical Report [Provision D.24.]	November 15, 1998

I, **ROGER W. BRIGGS**, Executive Officer, do hereby certify the foregoing is full, true, and correct copy of on order adopted by the California Regional Water Quality Control Board, Central Coast Region, on **June 3, 1994**.

Signature on file
Executive Officer